Ordering number: EN 1042F

Monolithic Digital IC

No.1042F

LB1211 Series

General-Purpose Transistor Array

The LB1211 series are general-purpose transistor arrays containing 7 channels (5 channels : LB1217 only). They are especially suited for driving LEDs, lamps, small-sized relays, etc. The transistors can be standardized.

Features

- Common-emitter 7 channels. LB1211,1212,1213,1214
- Common-collector 7 channels. LB1215,1216
- Independent 5 channels LB1217
- Built-in base current limiting resistors. LB1212,1213,1214,1216
- Built-in Zener diodes for level shift. LB1212
- Capable of being direct driven with TTL, CMOS, PMOS, etc.
- Wide operating voltage and temperature ranges

Absolute Maximum Ratings at Ta = 25°C

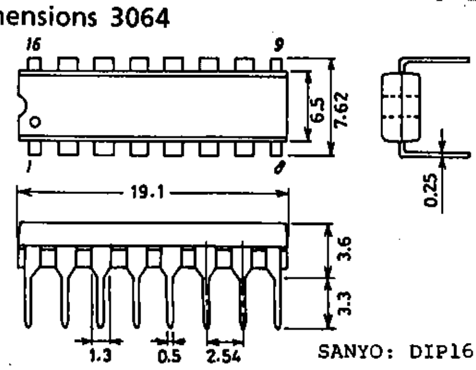
				unit
Output Supply Voltage	V_{OUT}	LB1212/13/14 only	−0.5 to +50	V
Collector to Emitter Voltage	V_{CEO}	LB1211/15/16/17 only	35	V
Collector to Base Voltage	V_{CBO}	LB1211/15/16/17 only	50	V
Output Current	I_{OUT}		200	mA
Input Voltage	$V_{IN}1$	LB1212/13/14 only	−0.5 to +30	V
	$V_{IN}2$	LB1216 only	−0.5 to +45	V
Input Current	I_{IN}	LB1211/15/17 only	25	mA
GND Pin Current	I_{GND}		500	mA
Allowable Power Dissipation	Pd max		960	mW
Operating Temperature	Topr		−20 to +75	°C
Storage Temperature	Tstg		−40 to +150	°C

Electrical Characteristics at Ta = 25°C

			min	typ	max	unit
Output Voltage	$V_{OUT}1$	I_{IN}=1mA, I_{OUT}=10mA			0.2	V
	$V_{OUT}2$	I_{IN}=2mA, I_{OUT}=100mA LB1212/13/14 only			0.8	V
	$V_{OUT}3$	I_{IN}=3mA, I_{OUT}=100mA LB1211/15/16/17 only			0.8	V
Output Leakage Current	I_{OFF}	V_{IN}=0V, V_{OUT}=25V			10	μA
Output Sustain Voltage	V_{OUT}(sus)	I_{OUT}=100mA	35			V
DC Current Gain	$h_{FE}1$	V_{OUT}=10V, I_{OUT}=10mA LB1212/13/14 only	50		500	
	$h_{FE}2$	V_{OUT}=10V, I_{OUT}=10mA LB1211/15/16/17 only	70		500	

Continued on next page.

Package Dimensions 3064
(unit : mm)



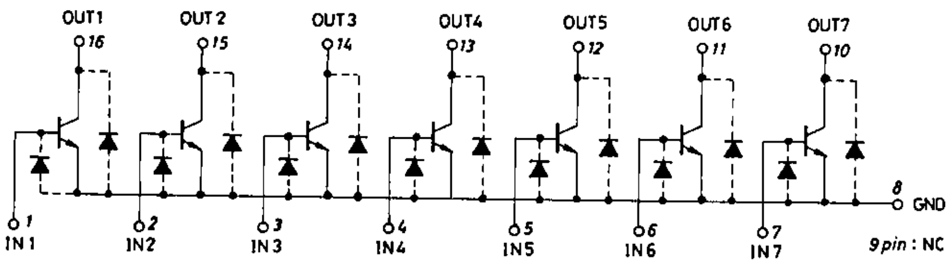
SANYO Electric Co., Ltd. Semiconductor Business Headquarters
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110 JAPAN

Continued from preceding page.

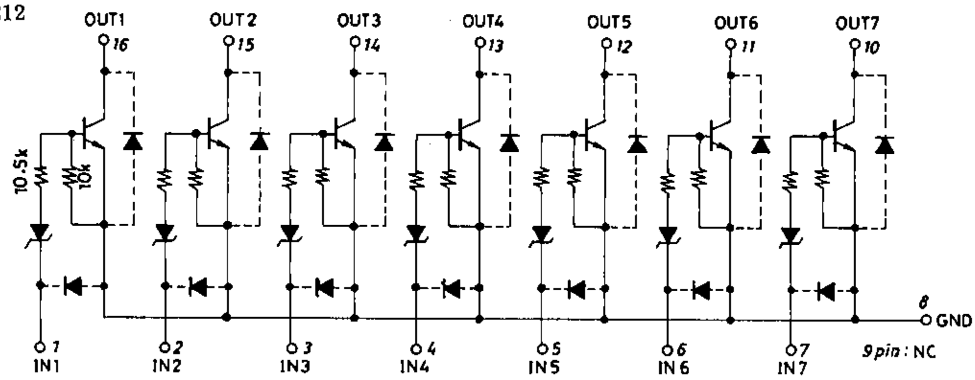
			min	typ	max	unit
Input Voltage	$V_{IN(on)}$	I_{IN}=1mA,I_{OUT}=10mA LB1211/15/16/17 only	0.4			V
Turn-ON Time	t_{ON}	Refer to Test Circuit.		50		ns
Turn-OFF Time	t_{OFF}	Refer to Test Circuit.		200		ns

Equivalent Circuit

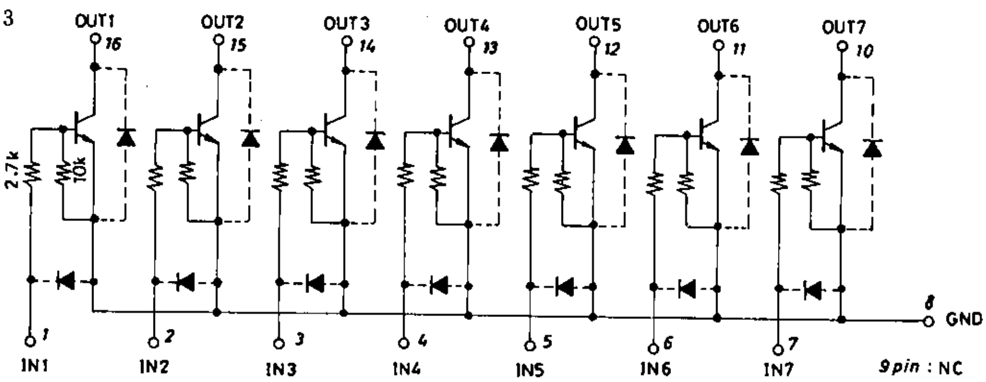
LB1211



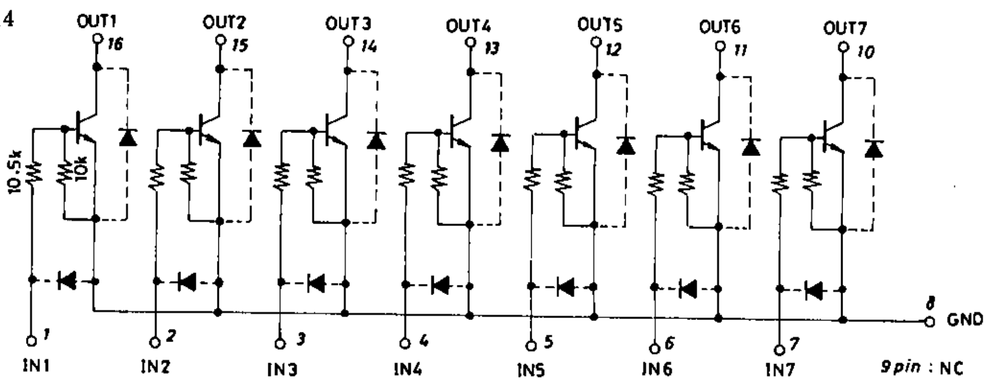
LB1212



LB1213

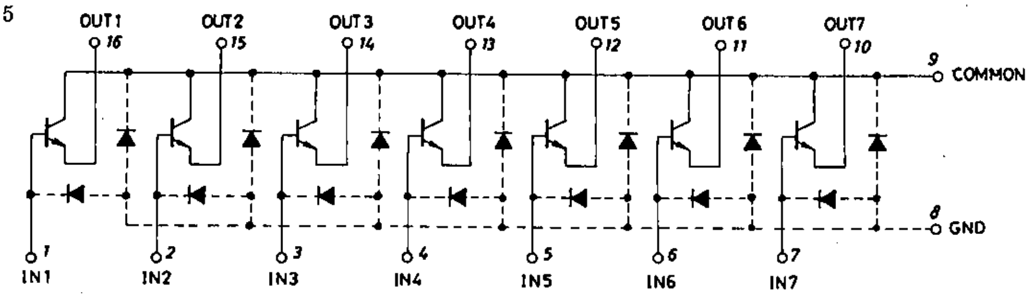


LB1214

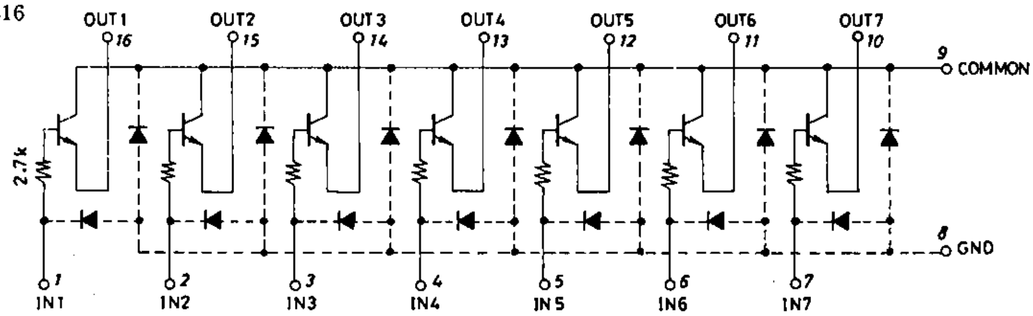


Unit (resistance : Ω)

LB1215

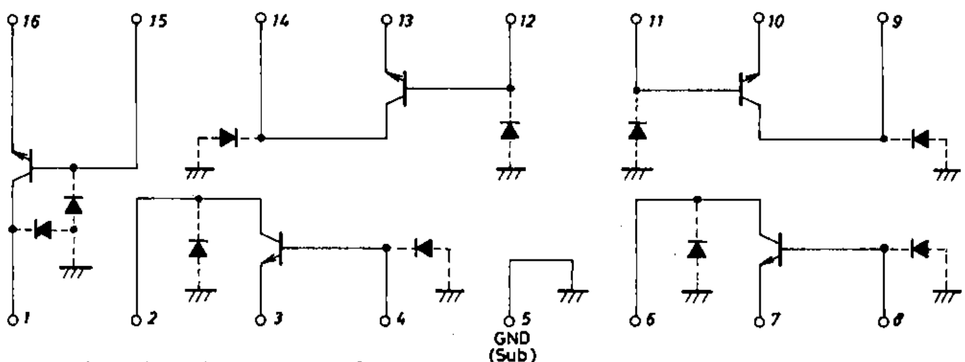


LB1216



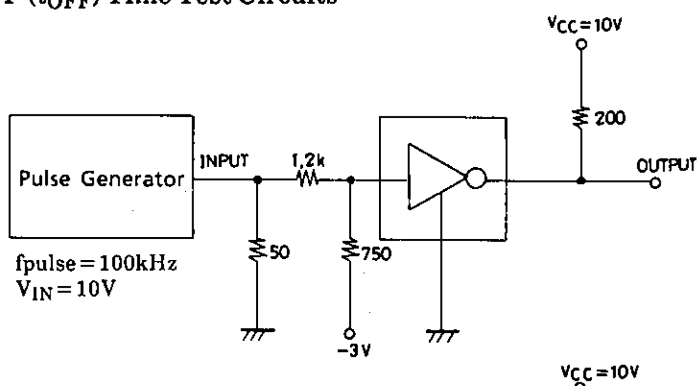
Unit (resistance : Ω)

LB1217

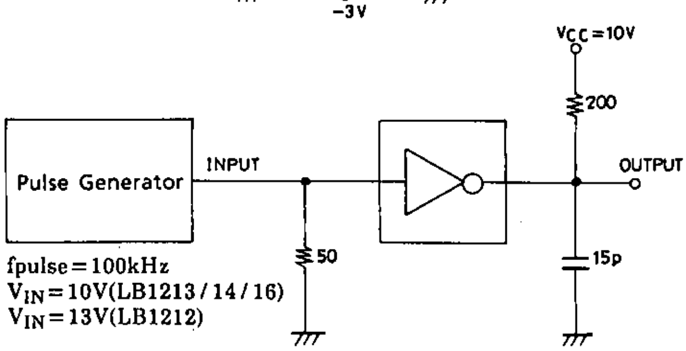


Turn-ON (t_{ON}), Turn-OFF (t_{OFF}) Time Test Circuits

LB1211/15/17



LB1212/13/14/16



Unit (resistance: Ω, capacitance: F)

Input/Output Waveforms

